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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,283	04/02/2004	Stephen M. Fluker	PC-1664	2310

23717 7590 04/04/2007  
LAW OFFICES OF BRIAN S STEINBERGER  
101 BREVARD AVENUE  
COCOA, FL 32922

EXAMINER
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LE, LANA N

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/817,283

Applicant(s)

FLUKER, STEPHEN M.

Examiner

Lana N. Le

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, and 26-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17 is/are allowed.
- 6) ☒ Claim(s) 26-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Kroeger et al (US 6,898,249).

Regarding claims 26 and 28, the admitted prior art disclose a method and system respectively for efficiently converting an analog FM radio station (figs. 1 & 2; page 3, lines 19-21) having an existing analog transmitter (2) having an analog output to a HD (High Definition) digital radio station, comprising the steps of:

providing a separate FM transmitter (40) that generate both analog and digital output (page 3, lines 13-15; fig. 2);

combining (via hybrid combiner 4) the digital output (IBOC output) of the separate transmitter (6) with the analog output (analog output from 2 for analog input to 4) of the existing analog transmitter (page 2, lines 1-20);

generating a combined output (output at combiner 4) that is equivalent to approximately 100% of both wattage outputs of the existing analog transmitter (2) and the separate transmitter (40), without an additional reject load (besides reject load 24 of fig. 1), in order to generate efficient FM HD radio signals at power levels of

approximately 7,000 watts to approximately 35,000 watts (page 2, lines 1-20; page 1, lines 11-14; page 3, lines 6-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the IBOC transmitter of fig. 2 for the IBOC transmitter of fig. 1 in order to provide efficient HD radio transmission without needing much total power as suggested by the admitted prior art (page 3, lines 7-8).

The admitted prior art does not disclose combining the analog and digital outputs of the separate transmitter with the analog output of the existing analog transmitter.

Kroeger et al disclose combining (via 124) the analog (from 102) and digital (from 112) outputs (analog and digital output 122 via 120) of the separate transmitter (6) with the analog output (output 110 via 106, 108) of the existing analog transmitter (2) (col 5, line 55 – col 6, line 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the first transmitter of the admitted prior art be both digital and analog in order to enhance the first transmitter with digital information outputted therefrom to enable digital audio broadcast signals to be broadcasted as well as analog signals as suggested by Kroeger et al.

Regarding claims 27 and 29, the admitted prior art and Kroeger et al disclose the method of claims 26 and 28 respectively, wherein the admitted prior art disclose the combiner (4) includes the step of providing a 10 dB Hybrid combiner (4) (fig. 1). The admitted prior art does not specifically disclose a 3dB combiner. However, it is notoriously old and well known in the art to have a 3 dB combiner. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the

combiner be 3 dB instead of 10dB in order to use less power when combining the signals for power efficiency purposes.

***Allowable Subject Matter***

3. Claims 1, 4, 7, 10, 13, 16 have been amended to include the allowable subject matter of objected claims 3, 6, 9, 12, 15, and 18 respectively, and are therefore allowable over the cited prior art.

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lana N. Le whose telephone number is (571) 272-7891.

The examiner can normally be reached on M-F 9:30-18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Lana N. Le  
Primary Examiner  
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